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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/954,835	09/18/2001	Monica A. Jacinto	7784-000255	8137

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EXAMINER

WILKINS III, HARRY D

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 10/01/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/954,835

Applicant(s)

JACINTO ET AL.

Examiner

Harry D Wilkins, III

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 18-28 is/are pending in the application.
- 4a) Of the above claim(s) 23-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 18-22 and 26-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5 August 2003 has been entered.

Specification

2. The disclosure is objected to because of the following informalities: Example 2 (paragraph [0029]) contains a list of elements and weight percents. However, when the weight percents are totaled, a sum of 102.5 is achieved. Applicant should amend this paragraph to correct the obvious error of the stated weight percents.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-10, 18-22 and 26-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the

Art Unit: 1742

application was filed, had possession of the claimed invention. The present claims contain limitations that are not supported by the specification as filed. The specification supports a range of Cr that includes 4-16 wt% (e.g.-see paragraph [0011]). Applicant is presently trying to claim (in claims 1 and 26) less than 10 wt% Cr, (in claim 4) about 1 to about 9 wt% and (in claim 18) less than about 9 wt% Cr. None of these ranges are supported by the specification and thus contain new matter. Also, newly amended claim 5 includes the limitation that the range of Al is 1-2 wt%. This is not supported by the specification, as the only ranges supported (see paragraphs [0011] through [0013]) are 1-4 wt% and 1-3 wt%. New claim 26 also claims at least 72 wt% of Ni. This range is not supported by the specification, which only discloses (see paragraphs [0011] through [0013] and [0020]) 55-75 wt%, 70-7⁵ wt% and at least 50 wt%. Claim 26 also includes limitations regarding "less than about 10 wt% of gamma prime formers". The specification contains no reference to "gamma prime formers", and the closest disclosure in the specification is that Al and Ti contribute to gamma prime strengthening when added at 1-4 wt% each (2-8 wt% total). Thus, this limitation is not supported by the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1742

6. Claims 1-8, 10, 18-22 and 26-28 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Baldwin (US 3,869,284).

Baldwin anticipates the invention as claimed. Baldwin teaches (see Table 1, col. 5) a composition that includes 5-22 (5-12 preferred) wt% Cr, 0.2-8 (2-8 preferred) wt% Al, 0.5-7 (0.75-3 preferred) wt% Ti, 0-20 (5-15.5 preferred) wt% Co and the balance Ni (40-80 wt%). These ranges overlap the presently claimed ranges. See MPEP 2131.03. The other elements present in the composition, with the exception of B are optional, and include a zero amount addition. With regards to the presence of B, the present claims recite a composition "comprising" a list of elements, and such language is read to leave the composition open to additional elements, even in major amounts.

With respect to the extinguishing threshold pressure, the composition of Baldwin is identical to the presently claimed composition and Applicant does not disclose any special metallurgical processing to achieve this property. Therefore, one of ordinary skill in the art would have expected the alloy of Baldwin to inherently possess the extinguishing threshold pressure as claimed.

Regarding claims 2-5, Baldwin teaches (see Table 1) overlapping ranges of the presently claimed ranges. See MPEP 2131.03.

Regarding claim 6, Baldwin teaches (see col. 5, lines 45-48) that up to 0.50 wt% Mn may be added to the alloy.

Regarding claim 7, Baldwin teaches (see col. 5, lines 45-48) that up to 0.50 wt% Si may be added to the alloy.

Art Unit: 1742

Regarding claim 8, Baldwin teaches (see Table 1) adding preferably less than 0.05 wt% C. See MPEP 2131.03.

Regarding claim 10, Baldwin teaches (see Table 1) adding preferably 0.001-0.5 wt% Zr. See MPEP 2131.03.

Regarding claim 18, Baldwin teaches (see Table 1) an overlapping range of Ni and Cr. With respect to the extinguishing threshold pressure and tensile strength, the composition of Baldwin is identical to the presently claimed composition and Applicant does not disclose any special metallurgical processing to achieve these properties. Therefore, one of ordinary skill in the art would have expected the alloy of Baldwin to inherently possess the extinguishing threshold pressure and tensile strength as claimed.

Regarding claim 19, Baldwin teaches (see Table 1) that the alloy further includes Co, Al and Ti.

Regarding claim 20, Baldwin teaches (see Table 1) that the alloy further includes C, B and Zr.

Regarding claim 21, with respect to the extinguishing threshold pressure, the composition of Baldwin is identical to the presently claimed composition and Applicant does not disclose any special metallurgical processing to achieve this property. Therefore, one of ordinary skill in the art would have expected the alloy of Baldwin to inherently possess the extinguishing threshold pressure as claimed.

Regarding claim 22, with respect to the tensile strength, the composition of Baldwin is identical to the presently claimed composition and Applicant does not disclose any special metallurgical processing to achieve this property. Therefore, one

Art Unit: 1742

of ordinary skill in the art would have expected the alloy of Baldwin to inherently possess the tensile strength as claimed.

Regarding claims 26 and 27, Baldwin teaches (see Table 1) overlapping ranges of Ni, Cr, Co and gamma prime formers (Al and Ti). See MPEP 2131.03. This claim recites a composition "consisting essentially of" a list of elements. This language is read to close the composition to other elements which would materially affect the novel characteristics of the alloy. However, it is asserted that the presence of 0.05-0.30 wt% B in Baldwin would not materially affect the ability of the alloy to resist burn. Evidence that some B is acceptable in the composition can be seen throughout the present specification.

Regarding claim 28, Baldwin teaches (see col. 5, lines 45-48) that up to 0.50 wt% Mn may be added to the alloy.

7. Claims 26 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Hill et al (US 4,488,915).

Hill et al anticipate the invention as claimed. Hill et al teach (see abstract) an alloy with 7-13 wt% Cr, 4-16 wt% Co, 7-12 wt% gamma prime formers (Al+Ti) and the balance Ni. This claim recites a composition "consisting essentially of" a list of elements. This language is read to close the composition to other elements which would materially affect the novel characteristics of the alloy. However, it is asserted that the presence of 1-4 wt% Mo and/or Ru would not materially affect the ability of the alloy to resist burn.

Art Unit: 1742

8. Claims 1, 2, 4, 8-10, 18-22, 26 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Henry (US 4,983,233).

Henry anticipates the invention as claimed. Henry teaches (see abstract) an alloy that contains 4-12 wt% Co, 7-13 wt% Cr, 3-6 wt% Al, 3.5-5 wt% Ti and the balance Ni, with minor amounts of Mo, Ta, and Nb. With regards to the presence of Mo, Ta and Nb, the present claims recite a composition "comprising" a list of elements, and such language is read to leave the composition open to additional elements, even in major amounts. The ranges of Co, Cr, Al and Ti overlap the presently claimed ranges. See MPEP 2131.03.

With respect to the extinguishing threshold pressure, the composition of Henry is identical to the presently claimed composition and Applicant does not disclose any special metallurgical processing to achieve this property. Therefore, one of ordinary skill in the art would have expected the alloy of Henry to inherently possess the extinguishing threshold pressure as claimed.

Regarding claims 2 and 4, Henry teaches (see abstract) overlapping ranges of the presently claimed ranges. See MPEP 2131.03.

Regarding claim 8, Henry teaches (see abstract) adding less than 0.20 wt% C. See MPEP 2131.03.

Regarding claim 9, Henry teaches (see abstract) adding less than 0.10 wt% B. See MPEP 2131.03.

Regarding claim 10, Henry teaches (see abstract) adding less than 0.10 wt% Zr. See MPEP 2131.03.

Art Unit: 1742

Regarding claim 18, Henry teaches (see abstract) an overlapping range of Ni and Cr. With respect to the extinguishing threshold pressure and tensile strength, the composition of Henry is identical to the presently claimed composition and Applicant does not disclose any special metallurgical processing to achieve these properties. Therefore, one of ordinary skill in the art would have expected the alloy of Henry to inherently possess the extinguishing threshold pressure and tensile strength as claimed.

Regarding claim 19, Henry teaches (see abstract) that the alloy further includes Co, Al and Ti.

Regarding claim 20, Henry teaches (see abstract) that the alloy further includes C.

Regarding claim 21, with respect to the extinguishing threshold pressure, the composition of Henry is identical to the presently claimed composition and Applicant does not disclose any special metallurgical processing to achieve this property. Therefore, one of ordinary skill in the art would have expected the alloy of Henry to inherently possess the extinguishing threshold pressure as claimed.

Regarding claim 22, with respect to the tensile strength, the composition of Henry is identical to the presently claimed composition and Applicant does not disclose any special metallurgical processing to achieve this property. Therefore, one of ordinary skill in the art would have expected the alloy of Henry to inherently possess the tensile strength as claimed.

Regarding claims 26 and 27, Henry teaches (see abstract) overlapping ranges of Ni, Cr, Co and gamma prime formers (Al and Ti). See MPEP 2131.03. This claim

Art Unit: 1742

recites a composition "consisting essentially of" a list of elements. This language is read to close the composition to other elements which would materially affect the novel characteristics of the alloy. However, it is asserted that the presence of Mo, Ta and Nb in Henry would not materially affect the ability of the alloy to resist burn.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raghavan et al (US 4,019,900).

Raghavan et al teach (see abstract) an alloy that contains 1-6 wt% Cr, 5-20 wt% Co, 2-6 wt% Al (gamma prime former) and the balance Ni with small additions of Si, C, and Mg. The ranges of Cr and Al are within the presently claimed ranges. See MPEP 2131.03. The range of Co is broader than the presently claimed range. However, it would have been within the expected skill of a routineer in the art to have optimized the composition of Co in order to maximize the outstanding properties of the alloy (see col. 2, lines 9-39). This claim recites a composition "consisting essentially of" a list of elements. This language is read to close the composition to other elements which would materially affect the novel characteristics of the alloy. However, it is asserted that the presence of 0.5-4 wt% Si, 0.03-0.30 wt% C and 0.005-0.25 wt% Mg would not

Art Unit: 1742

materially affect the ability of the alloy to resist burn. Evidence that some Si and C are acceptable in the composition can be seen throughout the present specification.

Regarding claim 28, Raghavan et al teach (see abstract) adding up to 1 wt% Mn to the alloy.

[Raghavan et al teach (see col. 3, lines 22-26) directly against adding any Ti to the alloy. Thus, claims 1-10 and 18-22 are not rejectable over Raghavan et al.]

Response to Arguments

11. Applicant's arguments with respect to claims 1-10, 18-22 and 26-28 have been considered but are moot in view of the new ground(s) of rejection. With respect to the declaration under 37 CFR 1.132 filed on 5 May 2003, the declaration is not found persuasive. Applicant should provide a factual basis supporting the argument that the additional elements affect the burn resistance and strength of the alloy, thus showing that the prior art alloys did not possess the extinguishing threshold pressure and tensile strength as claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry D Wilkins, III whose telephone number is 703-305-9927. The examiner can normally be reached on M-Th 10:00am-8:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V King can be reached on 703-308-1146. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

- Art Unit: 1742

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Harry D Wilkins, III
Examiner
Art Unit 1742

hdw

ROY KING 
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700